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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,284	11/17/2003	Hashem Akhavan-Tafti	Lumigen 4.1-88	5215
23700 7590 07/10/2007 LUMIGEN, INC. 22900 W. EIGHT MILE ROAD SOUTHFIELD, MI 48034			EXAMINER GROSS, CHRISTOPHER M	
			ART UNIT 1639	PAPER NUMBER
			MAIL DATE 07/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/715,284

Applicant(s)

AKHAVAN-TAFTI ET AL.

Examiner

Christopher M. Gross

Art Unit

1639

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 12 April 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☒ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: see attached. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1,2,4,5,8-12,22,23,27,28.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
J. DOUGLAS SCHULTZ, PH.D.  
SUPERVISORY PATENT EXAMINER

## **ADVISORY ACTION**

### **Continuation of 3.**

Applicant's proposed amendment, inserting the limitation: "the nucleic acid binding portion consists essentially of..." in proposed new claims 30 and 31 requires additional search and consideration and narrows the scope of the claimed subject matter

### **Continuation of 11.**

Applicant argues: (i) limitations which serve to differentiate the claimed subject matter from the prior art are present in the claims; (ii) an expectation of success is not present in the combination of Hughes (1996 37: 7595-7598) and Lough et al (US patent 5900481); (iii) the 7/11/2006 amendments to the claims do not constitute new matter.

(i) In regard to limitations not being present in the claims, applicant argues, see p 10 (4/12/2007), that the Examiner has addressed "cleavage of the onium salt," (i.e. from applicant's arguments 7/11/2006, p 9) in the final office action mailed 1/25/2007 rather than "the phosphonium at no time is freed from the polymer resin" (i.e. from applicant's arguments 7/11/2006, p 10).

It is the Examiner's position that both of these statements are largely equivalent, thus the fact remains that in giving the claims the broadest reasonable interpretation, removal of the salt is not recited in the claims: The Examiner has interpreted "a cleavable linker portion" as referring to removal (cleavage) of a nucleic acid from the solid support.

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(ii) In regard to an expectation of success not existing in the combination of Hughes and Lough et al, applicant argues, see p 11 (4/12/2007), the resultant alkylidiphenylphosphine of Hughes bears a partial negative charge on oxygen, therein, presumably preventing desorption (cleavage) of a negatively charged nucleic acid from the support.

It is noted, however, even if said phosphine has partial zwitterion character, the phosphine functional group still bears a net neutral charge due the partial positive charge on phosphorous.

Applicant argues, see p 12, lines 12-13 that neutral phosphine species on the support would *adsorb* nucleic acids and desorption of a negatively charged nucleic acid from a neutral phosphine-solid support represents an unknown and unproven principle, but does not offer any objective evidence regarding nucleic acid-phosphine binding.

(iii) Applicant's arguments concerning the inherency of "a nucleic acid binding portion for non-covalent and non-sequence specifically binding" being present in the nature of the material of the claimed subject matter themselves appears likely persuasive.